REMARKS

First, it is important to emphasize that independent Claims 1, 14 and 25 require a composition including water and a water-soluble absorbent binder polymer component having an alkoxysilane functionality, and domains of a desiccant component dispersed within the absorbent binder polymer component. The absorbent binder polymer in the composition spontaneously crosslinks by hydrolysis of the alkoxysilane functionality and subsequent removal of the water after the composition is applied to a substrate.

Applicants' specification provides an explicit definition for "spontaneous crosslinking" (page 11, lines 18-21).

> The term "spontaneous crosslinking" refers to crosslinking which occurs without radiation, catalysis, or any other inducement other than the specified temperature of about 120°C or less, suitably about 100°C or less (underline added).

One of the most fundamental tenets of patent law is that claim limitations are to be interpreted according to the meaning provided in Applicant's specification. While other sources may be consulted in understanding ambiguous terms, it is impermissible to defy a plain meaning provided in the specification by substituting a second, contradictory meaning derived from another source. The person skilled in the art is deemed to read a claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire specification. Phillips v. AWH Corp., 75 USPQ2d 1321 (Fed. Cir. 2005). The Examiner is required to construe the claims in the same manner as they would be construed by persons of ordinary skill in the art. Id., 75 USPQ2d at 1326, 1329.

Second, it is important to emphasize that the composition contains domains of a desiccant component dispersed within the water-soluble absorbent binder polymer prior to crosslinking (See page 3, lines 16-18, page 7, lines 18-19, page 18, lines 26-28). No composition having this feature is disclosed or suggested in the prior art.

a) Claim Rejection Based On Harada In View Of Gander

The rejection of Claims 1-10, 12-21 and 23-37 under 35 U.S.C. § 103(a) as obvious over U.S. Patent 5,853,867 ("Harada") in view of U.S. Patent 3,951,893 ("Gander") is respectfully traversed.

Harada discloses an absorbent composite comprising a supporting member and a cationic absorbent polymer and anionic absorbent polymer particles fixed to the supporting member ("Abstract"). The cationic absorbent polymer is formed into a binder by adding a crosslinking agent to the polymer during or after polymerization, and crosslinking the polymer using the crosslinking agent (Col. 5, lines 1-4). This is contrary to Applicants' definition of "spontaneous crosslinking" which precludes the use of a crosslinking agent or other means of catalytic inducement. The crosslinking (using the crosslinking agent) may occur at 0-200°C (Col. 5, lines 30-33). Various types of catalytic crosslinking agents are disclosed (Col. 5, line 58 – Col. 6, line 9).

While various cationic absorbent polymers are disclosed in Harada, none of them has an alkoxysilane functionality (Col. 4, line 54 – Col. 5, line 29). All of Applicant's claims require the polymer to have an alkoxysilane functionality. Applicant's claims further require crosslinking by hydrolysis of the alkoxysilane functionality and subsequent removal of water. The cationic absorbent polymers of Harada cannot possibly crosslink by this mechanism.

The anionic absorbent polymer of Harada is formed into polymer particles in a reaction vessel, and may be subsequently pulverized (Col. 6, lines 15-56). As best understood from the reference, the anionic absorbent polymer is formed from monomers using a polymerization initiator, but is not crosslinked. No crosslinking step or reaction is disclosed.

While various anionic absorbent polymers are disclosed in Harada, none of them includes an alkoxysilane functionality (Col. 6, lines 15-47). All of Applicant's claims require the polymer to have an alkoxysilane functionality. Applicant's claims further require crosslinking by hydrolysis of the alkoxysilane functionality and subsequent

removal of water. The anionic absorbent polymers of Harada et al. cannot possibly crosslink by this mechanism.

Furthermore, as previously explained, Harada does not disclose domains of a desiccant component dispersed within a water-soluble absorbent binder polymer prior to crosslinking. All of Applicant's claims recite this limitation. The acetate fibers disclosed at Col. 4, lines 38-40 constitute part of the substrate and are not dispersed within a water-soluble absorbent binder polymer. The starches disclosed at Col. 8, lines 27-31 are embodiments of an absorbent binder polymer, and are not separate domains dispersed within an absorbent binder polymer.

Finally, Harada does not contain any suggestion or motivation to modify the disclosed composition in order to a) incorporate an alkoxysilane functionality into a disclosed polymer, or b) achieve spontaneous crosslinking, or c) disperse domains of a desiccant component in the absorbent polymer. The Examiner has not shown how a person skilled in the art would be motivated by the prior art to make these wide and varied modifications to the composition of Harada. Absent a suggestion or motivation to modify the composition of Harada, the various modifications would not have been obvious, regardless of what the secondary reference discloses.

Gander discloses film-forming silane crosslinked acrylate interpolymers having water-barrier properties (Abstract). Notably, an objective of achieving water-barrier properties is an opposite of water absorbency. The interpolymer is made of a first monomer selected from a group consisting of alkyl acrylates in which the alkyl group has 1-8 carbons, and a second monomer which can be an acid comonomer selected from a group consisting of acrylic acid, methacrylic acid, fumaric acid, maleic acid, maleic anhydride and itaconic acid (Col. 3, lines 12-25). The interpolymer also includes a crosslinking monomer which contains both an ethylenic linkage and an alkoxysilyl or acyloxysilyl group (Col. 3, lines 62-64).

The interpolymers of Gander remain linear, soluble and uncrosslinked until crosslinking is made to take place by reaction of the alkoxysilyl or acyloxysilyl groups pendant from the polymer backbone (Col. 3, line 66 – Col. 4, line 2). The crosslinking

monomers and process are carefully selected to provide an interpolymer film having good water barrier properties (Col. 4, lines 8-14). The interpolymer is prepared by polymerizing the monomers in a heated organic solvent, thereby avoiding the presence of water (Col. 5, lines 37-46). The crosslinking reaction occurs during subsequent drying of the interpolymer, which drives off the organic solvent (Col. 5, line 66 – Col. 6, line 10).

In summary, Gander discloses an interpolymer used for a water-barrier film, that is carefully prepared using techniques that avoid the use of water. At no time is the interpolymer combined with water as required by Applicant's claims. At no time is the interpolymer spontaneously crosslinked by hydrolysis of the alkoxysilane functionality and subsequent removal of water. Contrary to Applicant's claims, Gander crosslinks the interpolymer on a silicone release film, thereby preventing the interpolymer from serving as a crosslinkable absorbent binder (Col. 6, lines 1-10).

Gander also seeks to accelerate the crosslinking using catalytic amounts of certain crosslinking agents (Col. 6, lines 11-20). As explained above, Applicant's claims preclude the use of crosslinking agents via the definition of "spontaneous crosslinking." Neither Harada nor Gander achieves spontaneous crosslinking by hydrolysis of an alkoxysilane functionality and subsequent removal of water.

Furthermore, Gander (like Harada) fails to disclose an absorbent binder polymer having domains of a desiccant component dispersed within the polymer. This feature is required by each of Applicant's claims.

As explained above, Harada does not provide a suggestion or motivation to make the wide and varied modifications that would be required to arrive at the claimed invention. Gander also provides no suggestion or motivation to modify the composition of Harada in this fashion. Whereas Harada discloses an absorbent binder material, Gander is directed to a water-barrier material and avoids water at every stage of the synthesis. The technologies are divergent and incompatible, and there is no motivation to combine them.

b) Conclusion

For these reasons, Applicant's claims are in condition for allowance. Applicant's attorney notes that the previous request for a telephone interview was not granted by the Examiner. If the Examiner detects any unresolved issues, then Applicant's attorney maintains the interview request.

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